UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
CASCA, FRED A

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2008*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-24* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
         1.☐ Certified copies of the priority documents have been received.
         2.☐ Certified copies of the priority documents have been received in Application No. _____.
         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
              application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____ .
3)☐ Information Disclosure Statement(s) (PTO/SB/08)   5)☐ Notice of Informal Patent Application
     Paper No(s)/Mail Date _____ .   6)☐ Other: _____ .

DETAILED ACTION

1.   This action is in response to applicant's amendment filed on June 4, 2008. Claims 1-24

are pending in the present application.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming
> the subject matter which the applicant regards as his invention.

3.   Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

        Claim 1 line 8 and claim 8 line 7 recite the limitation "the local network". There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent
> therefor, subject to the conditions and requirements of this title.

5.   Claims 16-17 and 20-21 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

        Claims 16-17 and 20-21 are drawn to a "program" *per se* as recited in the preamble and

as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed

as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

The following are example of acceptable language in computer-processing related claims:

1. "computer readable medium" encoded with _____

    a. " a computer program"

    b. "software"

    c. "computer executable instructions"

    d. "instructions capable of being executed by a computer"

2. "a computer readable medium" _____ "computer program"

a. "storing a"

b. "embodied with a"

c. "encoded with a"

d. "having a stored"

e. "having an encoded"

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-4, 6-12 and 14-24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Haverinen et el (US 2005/0195780 A1) in view of Westberg et al (US 2004/0267874 A1).

Referring to claim 1, Haverinen discloses a method of arranging transmission of packet

data in a system (abstract and figure 1) comprising a mobile terminal (figure 1-2, "mobile

node"), a wireless local network and a mobile network (abstract and figure1-2 and par. 21,

"WLAN"), the method comprising arranging data transmission between, the mobile terminal and

the wireless local network (fig. 2 and par. 21), signaling, end-to-end service related parameters

via a separate signaling element (par. 21-23, fig. 2), receiving a resource authorization identifier

in the mobile terminal from the signaling element (par. 5, 11, "VPN", "IP address", "secure

network"),

transmitting the resource authorization identifier to the mobile network via the local network (fig. 2, par. 5, 27, "MN determines whether or not an association with a 2nd node can be established"), requesting authorization from the signaling, element by the mobile network on the basis of the resource authorization identifier (par. 5, 8, 27, "obtain an address from the secure private network", "Mobile IP foreign or home agent advertisement message"), and binding a communication channel between the mobile terminal and the mobile network (fig. 1-2) to an end-to-end data flow of the mobile terminal on the basis of an authorization response received from the signaling element and comprising identification information on the end-to-end data flow and tunnel identification information identifying the tunnel (fig. 1-2 and par. 35-36 and 38, note that the mobile node is able to connect and from a channel with the WLAN and also with the cellular network. Further the connection between the mobile node and the AP of WLAN/Cellular network is end to end).

Haverinen does not specifically disclose binding a tunnel between the communication nodes as defined by applicant.

Westberg discloses methods and systems of packet communication between wireless nodes and wired nodes where packet tunnels are formed for specific communications (figure 1 and paragraphs 4, 6, 8, 12, 16-22, "IPSec tunnel", "WLANs", "packet-switched mobile networks", mobile networks such as GPRS networks by encapsulating LAN frames or datagrams to create a tunnel (e.g., an IP/UDP tunnel) from the remote LAN segment through the packet-switched mobile network and the packet-switched fixed network to the fixed LAN segment").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Haverinen by incorporating the teachings of Westberg in the format claimed, for the purpose of providing an efficient communication system.

Referring to claim 2, the combination of Haverinen/Westberg discloses the method as claimed in claim 1, wherein at least one filter or gate parameter is transmitted from the signaling element to the mobile network, the received at least one filter or gate parameter is associated with the tunnel, and filtering or gating is arranged in the mobile network to/from the tunnel based on the association (Westberg, paragraph 14, "firewall", "security gateway").

Referring to claim 3, the combination of Haverinen/Westberg discloses the method as claimed in claim 1, and further discloses the same tunnel between the mobile network and a network element of the mobile network and utilizing the data transmission resources of the local network is used for signaling purposes and for user data transmission (Westberg, figure 1 and paragraphs 4, 6, 8, 12, 16-22).

Referring to claim 4, the combination of Haverinen/Westberg discloses the method as claimed in claim 1, and further discloses a first tunnel between the mobile terminal and a first network element of the mobile network is established for end-to-end service parameter signaling, and a second tunnel between the mobile terminal and a second network element of the mobile network is established for user data transmission after the reception of (resource authorization) identifier (Westberg, figure 1 and paragraphs 4, 6, 8, 12, 16-22).

Referring to claim 6, the combination of Haverinen/Westberg discloses the method as claimed in claim 1, and further discloses the mobile network is a 3GPP network offering a

packet-switched service comprising at least one network element supporting access, via a WLAN (Westberg, paragraph 31).

Referring to claim 7, the combination of Haverinen/Westberg discloses the method as claimed in claim 1, and further discloses an association is arranged between the tunnel and a 3GPP-WLAN interworking system bearer (Westberg, figure 1 and paragraphs 4, 6, 8, 12, 16-22).

Referring to claim 8, claim 8 defines a system reciting features analogous to the features defined by the method of claim 1 (as rejected above). Thus, the combination of Haverinen/Westberg discloses all elements of claim 8 (please see the rejection of claim 1 above).

Referring to claims 9-12 and 14, claims 9-12 and 14 define a network reciting features analogous to the features defined by the method of claims 1-4 and 6 (as rejected above) respectively. Thus, the combination of Haverinen/Westberg discloses all elements of claims 9-12 and 14 (please see the rejection of claims 1-4 and 6 above).

Referring to claims 15-17, claims 15-17 define a terminal and computer products reciting features analogous to the features defined by the method of claim 1 (as rejected above). Thus, the combination of Haverinen/Westberg discloses all elements of claims 15-17 (please see the rejection of claim 1 above).

Referring to claim 18, the combination of Haverinen/Westberg discloses a wireless terminal as claimed in claim 15, and further discloses the tunnel is used for signaling purposes and for user data transmission (Westberg, figure 1 and paragraphs 4, 6, 8, 12, 16-22, "IPSec tunnel", "datagrams).

Referring to claim 19, the combination of Haverinen/Westberg discloses a wireless terminal as claimed in claim 15, and further discloses a first tunnel is established for end-to-end service parameter signaling (see rejection of claim 18 above).

The combination does not specifically disclose a second tunnel for user data transmission after the reception of the resource authorization identifier.

It would have been an obvious design choice to modify the combination of Haverinen/Westberg by establishing a second tunnel for user data transmission after the reception of the resource authorization identifier, since the applicant has not disclosed that having such additional tunnel solves any stated problems or is for any particular purpose and it appears that the establishing of the first tunnel would perform equally well any transmission of user data as suggested by Westberg.

Claims 20-21 recite features analogous to the features of claims 18-19. Thus, the combination of Haverinen/Westberg discloses all elements of claims 20-21 (please see the rejection of claims 18-19 above).

Claim 22 recites features analogous to the features of claim 1. Thus, the combination of Haverinen/Westberg discloses all elements of claims 22 (please see the rejection of claim 1 above).

Claim 23 recites features analogous to the features of claim 21. Thus, the combination of Haverinen/Westberg discloses all elements of claims 23 (please see the rejection of claim 21 above).

Referring to claim 24, the combination of Haverinen/Westberg discloses a wireless system as claimed in claim 22, and further discloses wherein the signaling element is configured

to transmit at least one filter or gate parameter to the wireless network, wherein the at least one

filter or gate parameter is associated with the tunnel (figure 1 and paragraphs 4, 6, 8, 12, 16-22,

"IPSec tunnel", note that an IPSec tunnel inherently uses a filter or gate to filter out packets that

don't meet an access requirement).

8.   Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Haverinen et el (US 2005/0195780 A1) in view of Westberg et al (US 2004/0267874 A1) and

further in view of Oba et al (US 2005/0163078).

Referring to claims 5 and 13, the combination of Haverinen/Westberg discloses the

method and network of claims 1 and 9.

The combination does not specifically disclose the tunnel between the mobile terminal

and the mobile network is an IPSec tunnel, whereby the tunnel is established by utilizing an IKE

(Internet Key Exchange) protocol.

In the field of endeavor, Oba discloses the tunnel between the mobile terminal and the

mobile network is an IPSec tunnel, whereby the tunnel is established by utilizing an IKE

(Internet Key Exchange) protocol ("IPsec tunnel for the new subnet is established by running

IKE or IKEv2 over the latter IPsec tunnel").

It would have been obvious to one of the ordinary skill in the art at the time of invention

to modify the combination by incorporating the teachings of Oba as claimed, for the purpose of

providing a Multicast/Broadcast Traffic system and taking advantage of an additional

Firewalls/Intrusion Detection system, and thus providing a securer network.

Response to Arguments

9.   Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRED A. CASCA whose telephone number is (571)272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617